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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/824,492	04/15/2004	Petter Muren	116184	6577
29078	7590	08/03/2006	EXAMINER	
CHRISTIAN D. ABEL ONSAGERS AS POSTBOKS 6963 ST. OLAVS PLASS NORWAY, N-0130 NORWAY			DINH, TIEN QUANG	
			ART UNIT	PAPER NUMBER
			3644	

DATE MAILED: 08/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/824,492	MUREN, PETTER	
	Examiner	Art Unit	
	Tien Dinh	3644	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 September 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) 7, 11 and 13 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6, 8-10 and 12 is/are rejected.
- 7) ☒ Claim(s) 14 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>3/06, 7/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

Claims 7, 11, and 13 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected group/species, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 9/5/05.

Claim Objections

Claim 14 is objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim 8. See MPEP § 608.01(n). Accordingly, the claim 14 has not been further treated on the merits.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-6, 8-10, and 12 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

It is not understood how the tilting of the rotor blades can be accomplished. Where are the mechanisms to tilt the blades?

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-6, 8-10, and 12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

It is claimed that the rotor comprising at least two rotor blades. However, it is believed that this might be misleading since it requires at least four blades for at least a part of one or more rotor blades to have a pitch angle generally fixed relative to the reference plane and the rotating plane. Viewing figure 1, this seems to be the only scenario. Please explain. Furthermore, in claim 1, “at least comprising” is vague and indefinite.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, 3, and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by Barltrop.

Barltrop discloses in figures 2, 3, 7, and 8 the features that have been claimed. Barltrop discloses rotor having a rotor shaft and rotor blades. The rotating plane is defined by the tip of

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each blade during rotation. The rotating plane is tilted with respect to a reference plane that is perpendicular to the rotor shaft. At least a part of the rotor blade has a certain constant pitch angle with respect to the reference angle and a part of the rotor blade has a pitch angle with respect to the rotating plane. The tip of the blade has a pitch angle that is fixed relative to the rotating plane. The inner part of the blade has fixed pitch angle with respect to the reference plane. Re claim 3, the blades of Barltrop are twistable since it is commonly well known that blades undergo twisting when they are rotated. Plus a force strong enough will twist the blades. Hence, the blades are flexible and are made of flexible materials. Baltrop also discloses parts to enable tilting of the aircraft.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 4-6, 8, and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Barltrop in view of Meek.

Barltrop discloses all claimed parts (including flexible or pivotable hinge that has a hinge axis perpendicular both to the rotor blades and the rotor shaft, at least the inner part of the rotor blade has a pitch angle that is fixed relative to the reference plane when the rotor tilt vertically or laterally) except for the rings around the rotors and dual rotor blades. However, Meek discloses that rings around the rotors and dual rotor blades are well known.

It would have been obvious to one skilled in the art at the time the invention was made to have used rings and dual rotor blade systems in Barltrop's system as taught by Meek to allow a stronger rotor systems and to create more lift and greater control. Please note that the rotor blade system of Barltrop has a conical geometry.

Re claim 6, the examiner takes official notice that the blades being made of two or more elements that have flexible parts or hinges used to form part of the blades are well known in this day and age.

Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Barltrop as modified by Meek as applied to claim 8 and 1 above, and further in view of JP S52-088998.

Barltrop as modified by Meek discloses all claimed parts except for the means to produce the vertical thrust vector that is at a horizontal distance from the rotor. However, JP S52-088998 teaches means that produce the vertical thrust vector that is at a horizontal distance from the rotor are well known.

It would have been obvious to one skilled in the art at the time the invention was made to have used means that produce the vertical thrust vector that is at a horizontal distance from the rotor in Barltrop's system as modified by Meek and as taught by JP S52-088998 to create a more maneuverable system.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

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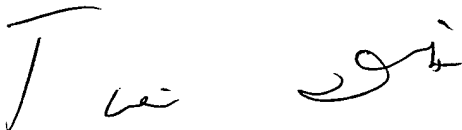
Ikeda, Owens, and Rosta et al teach rotorcrafts.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tien Dinh whose telephone number is 571-272-6899. The examiner can normally be reached on 9-6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Teri Luu can be reached on 571-272-7045. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

TD

A handwritten signature in black ink, appearing to read "Tien Dinh", is written below the typed name "TD".